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Reply to Attn of: 201

SEP 7 2000

TO: NASA Headquarters
Attn: Y/Associate Administrator for Earth Science

FROM: 100/Director

SUBJECT: Goddard Space Flight Center (GSFC) Fiscal Year (FY) 2000 Reporting:
(1) Annual Letter of Assurance and (2) Annual Certification Concerning
Protection of Human Research Subjects

This memo consolidates two annual reporting requirements: (1) annual Federal Managers' Financial Integrity Act letter of assurance, as required by NASA Headquarters Code JM letter dated April 28, 2000, subject: FY 2000 Management Control Plan and (2) annual certification concerning protection of human research subjects, per Code U letter dated March 27, 1996; GSFC Director letter dated June 7, 1996; and NASA Policy Directive (NPD) 7100.8C.

I am pleased to report that our internal management processes, financial systems, and the commitment of GSFC managers at all levels provide reasonable assurance that we operate safely, protect our resources, meet our program commitments, comply with regulation and policy, and surface and address problems in a timely manner. In addition to our ongoing internal management activities and evaluations, the various reviews by external entities also provide us with opportunities to recognize management issues and opportunities for improvement.

We have systematically reviewed all the recommendations contained in the various reports associated with last year's regretful Mars mission failures and have developed a response that addresses those that affect or may affect GSFC missions and processes. When the Agency response is finalized, we will review it thoroughly and make any necessary changes to GSFC's interim response to ensure that our internal processes are properly aligned with the new Agency guidance in this area. Through this process, we feel that we will gain the maximum benefit from the lessons learned from the Mars failures, thus ensuring that GSFC missions will continue to be successful now and in the future.

We continue to work initiatives and challenges identified in last year's letter of assurance. Some of our special focus areas are risk assessment and mitigation in our projects and programs, technical oversight, staffing in critical areas, key financial management processes, our safety initiative, physical security, property accountability and control, Information Technology (IT) security, and facilities.

I would like to single out for discussion in this memo our situation in property accountability and control, IT security, and facilities.

Property Accountability and Control

The accountability of controlled GSFC property is a significant concern. The FY 2000 loss rate is currently over 1.4 percent, which is substantially above the Agency's 0.5 percent loss-rate standard. Some of these property losses are still associated with the massive GSFC rehousing effort completed 3 years ago, as well as with the Consolidated Network and Mission Operations Support contract closeout and with the transfer of over 30,000 Government-owned equipment items to the Agency's Consolidated Spacecraft Operations Contract.

A property accountability team has been established to aggressively work with GSFC personnel at all levels to implement remedial actions. The team has developed a "Get Well Plan" and an orientation training program tailored for each directorate's needs. The team will assist directorates in finding missing items during each directorate's dedicated "Property Standdown Day." GSFC senior managers and, subsequently, lower-level managers were briefed on the situation, the corrective action plan, and on their responsibilities in this important management area. In addition, we have improved coordination between the Property Office, the Security Office, and the Chief Counsel's Office in reporting thefts and in holding employees financially accountable in cases where negligence is determined to be the cause of the property loss. GSFC employees must validate the equipment assigned to them to ensure that the GSFC property management data base is current and accurate. We have instituted improved internal controls through the GSFC Central Shipping Office to ensure that tagged items have the property transfer documentation required to update the NASA Equipment Management System data base. We will issue a Centerwide announcement emphasizing managers' and nonmanagers' property accountability responsibilities. Recognizing that embedded within the loss rate is a possible increase in theft of Government-owned property, we are developing a procedural response that includes enhanced security measures. We will carefully monitor and assess property accountability issues. We think that these proactive initiatives will help locate missing property, reduce GSFC's property loss rate, and ensure that our FY 2001 metric meets or is lower than the Agency's acceptable standard.

IT Security

This year, we made good progress in the area of IT security. GSFC ensured a high degree of IT security as a result of significant actions taken by the GSFC Chief Information Officer (CIO) over the past year. These actions included creating a "tiger team" to assess networkwide IT security vulnerabilities; training for system administrators, managers, and employees; establishing a network configuration control board; closing back-door vulnerabilities from the telephone system; implementing new vulnerability scanning procedures; communicating system compromises to senior managers; and follow-through on disabling compromised systems.

We have taken seriously and made substantial progress in the IT Security Priority Areas identified by the NASA CIO and the Deputy CIO for IT Security. Our metrics in the priority areas of (1) IT security training and (2) vulnerability reduction are as follows:

- We have exceeded the NASA goal to have 80 percent of the civil service ^{and outside contractor} workforce take the IT Security Overview training by September 30, 2000. GSFC has trained 82 percent of the workforce as of August 31, 2000. *Clarified per MWA 9/18/00*
- We have exceeded the NASA goal to have 50 percent of the system and network administrators trained in Basic IT Security Responsibilities by September 30, 2000. GSFC has trained 80 percent of this civil service and contractor workforce as of August 31, 2000.
- We fully expect to meet or exceed the NASA goal to have 80 percent of the civil service managers take the IT Security for Managers training by December 31, 2000. GSFC has trained 23 percent of these managers as of August 31, 2000.
- We have exceeded the NASA goal to have no more than one vulnerability for every four hosts (0.25), measured against NASA's "Top 50" vulnerabilities list. Currently, GSFC has achieved a ratio of one vulnerability for every six hosts (0.16) for the "Top 50" vulnerability set.

We are also assessing the physical security and safety of GSFC's computing assets. As the first step in this assessment, we identified physical safety vulnerabilities of the three computing facilities in Building 28, operated by the Earth and Space Data Computing Division (ESDCD). These facilities are the backbone of NASA's Center for Computational Sciences. While we identified no single potentially-catastrophic hazard, we found a number of vulnerabilities that have potential for disrupting operations of the ESDCD. The vulnerabilities include access problems, electrical and water hazards, poor air quality, and power disruptions. We are now taking corrective actions at nominal costs to eliminate such potential disruption at the ESDCD facility. Similar vulnerabilities may exist at other GSFC computing facilities, and we are taking actions to assess the situation and correct deficiencies that we find in these other facilities.

Finally in the area of IT security, I would like to assure you that we are addressing IT security issues surfaced by the NASA Office of Inspector General (OIG). In particular, the NASA OIG draft audit report A0003700 entitled "System Information Technology Security Planning," dated August 25, 2000, noted that NASA, along with GSFC as one of its Centers, has not adequately complied with the Computer Security Act and Office of Management and Budget (OMB) Circular A-130. The draft report noted that five of fourteen major elements of a major information system at GSFC did not have properly documented security plans, contingency plans, or risk assessments. This formalized planning and documentation deficiency can reduce the effectiveness of the implemented IT security programs for this information system. GSFC is taking steps to expedite the proper development and implementation of the required security plans, contingency plans, and risk assessments for this system.

These steps include the completion of an internal GSFC audit to document deficiencies against OMB Circular A-130 requirements and continuation of efforts to update, or create as needed, the required plans and assessments to ensure compliance by each element. In parallel, we will continue to implement technical security controls in order to mitigate security risks. Each of the specified elements of this major information system will deliver by the end of the calendar year a comprehensive security plan, contingency plan, and risk assessment, as required by OMB A-130, to the major element IT Security Official (ITSO). The ITSO will present these plans and assessments to the GSFC CIO for his review.

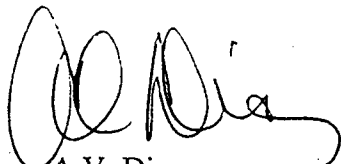
We are confident that these actions and other implementation actions will significantly improve the effectiveness of the security of our information systems.

Facilities

GSFC recognizes that deficiencies in its facilities set are a significant challenge to our ability to deliver efficient and effective services and products. In recent years, we have worked to remedy serious facilities quality and configuration problems, within our annual planning cycle; but this method proved insufficient. In response, we are preparing a 20-year facilities master plan, linked directly with our overall strategic planning. This plan delineates a framework for more significant and coordinated facilities change, helping us to transform our facilities from a challenge into a productive asset in accomplishing our mission.

As a final element of this annual assurance memo, we certify that GSFC has not conducted research or studies that meet the criteria of NPD 7100.8C, "Protection of Human Research Subjects."

Please call me if you have any questions or would like to discuss this further. Your staff may also call Ms. JoAnn Clark at 301-286-7977 for additional information.



A.V. Diaz

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